The Royal Society Scientific Information Conference, London, June 21-July 2, 1948.

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THE Royal Society of Great Britain held a Scientific Information Conference from June 21 to July 2, 1948 in London. This Conference was the direct result of a recommendation made by the Royal Society Empire Scientific Conference of 1946 that the Royal Society convene a conference of libraries, societies, and institutions responsible for publishing, abstracting, and information services to examine the possibility of improvement in existing methods of collection, indexing, and distribution of scientific literature, and for the extension of existing abstracting services.

The Conference was dedicated to considering information services from the point of view of the scientific user and was organized in four sections with members of the organizing committee acting as editors-inchief of the sections. It embraced all scientific subjects including agricultural sciences, engineering sciences, and medical sciences, but not social sciences.

The four sections and their respective editors-in-chief were:

Section I. Publication and Distribution of Papers Reporting Original Work

Editor-in-chief: Professor J. D. Bernal, F. R. S.

Section II Abstracting Services

Editor-in-chief: Sir David Chadwick

Section III. Indexing and Other Library Services

Editor-in-chief: Dr. J. E. Holmstrom

Section IV. Reviews, Annual Reports, etc.

Editor-in-chief: Professor H. Munro Fox, F. R. S.

Joint Chairmen of the Conference were Sir Edward Salisbury and Sir Alfred Egerton, who are Joint Secretaries of the Royal Society.

As early as February 1948 an announcement of the Conference invited that contributions relevant to the subject be sent to the appropriate editor-in-chief. As a result of the long period of detailed and careful planning, 46 papers bearing on the subject were collected and distributed, and detailed agenda prepared for 16 working parties distributed among the four sections.

Over 35 problems had been formulated for consideration by these working parties and each of the editors-in-chief had prepared papers indi-

cating in considerable detail the scope of their sections, the problems involved, and possible actions that could be taken by the working parties.

The program of the Conference provided for ten working days, of which the first three were devoted to plenary sessions to open the Conference and consider and approve agenda for the working parties; the next three for meetings of the working parties; and the last four for plenary sessions to consider, amend, and approve recommendations of the working parties.

Section I of the Conference had as its subject the publication and distribution of papers reporting original work. This section was divided into five working parties to examine and consider:

- a. Present format of scientific publications.
- b. Methods of reproduction.
- c, Editorial distribution, and other factors in relation to the length of scientific communications.
- d. Possible advantages from more rational grouping of scientific communications.
- e. The organization for publication of original papers and mechanism for their distribution.
- f. The causes of delaying publications.
- g. Existing difficulties in the availability of scientific information to scientists.

Section II of the Conference had as its subject abstracting services, and was divided into four working parties to examine and consider:

- a. The place of abstracts in the service of the scientist, the scope and quality of existing abstracting services in meeting his needs, and the possibility of auxiliary service by supplying information on request.
- b. The relationship between abstracting, indexing, and reviewing services.
- c. The techniques of preparing, issuing, and indexing abstracts.
- d. Possible co-operation between abstracting services both within the Commonwealth and with agencies in foreign countries.
- e. The advisability, cost, organization, and functions of a Council on Abstracting.
- f. Classification requirements in regard to abstracts.

Section III of the Conference had as its subjects Indexing and Other Library Services and was divided into six working parties to examine and consider:

a. Existing use and further application of the Universal Decimal Classification.

- b. The relative advantages and disadvantages of bound indexes compared to card indexes.
- c. The scope of alphabetical indexing as an alternative or auxiliary to Universal Decimal Classification.
- d. Centrally or commercially prepared catalog cards.
- e. Use of microphotographs to disseminate scientific information.
- Scope, advantages, and economies of the Retocee, Entocé and Ondoprint machines.
- g. Preparation of index in page form from separate cards.
- h. How far arrangements for issuing photographic or other copies from a central card index can mitigate the disadvantages of centralization.
- Proper fields of application of microfilm reels, microstrips, microcards, and microprints.
- j. Photo-reproduction methods not using film negatives.
- k. Publication of guide cards with Universal Decimal Classification.
- Use of automatic selecting devices and the relative merits of different devices.
- m. Use of coding devices.
- n. The status and pay of specialists in documentation of science.
- o. Training and qualifications of librarians.
- p. Training student scientists in use of bibliographical and information services.
- q. Guides to information organizations.
- r. Republication of the "World List of Scientific Periodicals."
- s. Availability of reference data and tables.
- t. Availability of guides and handbooks to scientific literature.
- u. The demand, supply, organization, and qualifications of translators.
- v. Arrangements to make unpublished translations available.
- w. Need and practicability of amending copyright laws to permit issuing of copies of translations.
- x. Degree of inadequacy of special dictionaries.
- Difficulties of verbal discussion at international scientific conferences.

Section IV of the Conference had as its subject reviews, annual reports and like publications and had only one working party to consider whether existing publications meet the needs of scientists for review publications and annual progress reports.

It is worthy of note that the Royal Society believed that the problems relating to the adequate dissemination of scientific information were of such magnitude to convene such a conference as this with representatives not only from the United Kingdom, but also from the dominions and from the

United States. It is also worthy of note that the Conference was limited by considering the subject only from the point of view of use and service to the scientific community.

Among the papers prepared for or used by the Conference, three are, notable in that they represented action to collect factual data for analysis and presentation to the delegates. One paper reported the analysis of 354 questionnaires sent out with books and journals borrowed from the Science Museum Library during the period 17 November to 29 November 1947. The second paper was a preliminary analysis of a pilot questionnaire on the use of scientific literature by Professor J. D. Bernal. Librarians will be interested to learn that the analysis of this questionnaire indicated that approximately 80 percent of all scientific literature is obtained from libraries and that use of reprints and subscription to journals played a minor role. The third such paper was an analysis of British abstracting journals and agencies. One interesting paper of the series, by Professor J. D. Bernal, was a proposal for a provisional scheme for central distribution of This proposal visualized central publication and scientific publications. distribution of all scientific papers in the United Kingdom by an agency to be known as the National Distributing Authorities. It was made clear that the central agency would be clerical in nature and that all papers would be referred to panels of representatives of the various scientific societies for decision as to merit for publication. However, the proposal met with considerable opposition in the Conference and a storm of opposition in certain elements of the public press, and was withdrawn as a proposal by Professor Bernal the first day of the Conference.

Working parties met mornings and afternoons for three days. Those in charge of the program, anticipating problems of mutual interest to more than one working party, had arranged for joint conferences between two or more parties of the same section or of different sections. Conference met in plenary session on the seventh day to begin discussions of the conclusions and recommendations of the working parties and finally adopted, on the last day, certain recommendations for submission to the council of the Royal Society. These recommendations are too numerous to relate at this time but there were some that would be of major interest to librarians. First, the Royal Society was invited to consider the constitution of a standing committee on scientific information services and also to consider the initiation of further research into the uses of scientific literature and other topics which the Conference referred for investigation. Several recommendations were submitted with reference to improvement of publication of scientific journals, including better preparation of scientific communications, standardization of format, the make-up of the journals, and increasing the availability of separates, offprints, and reprints. The Conference made the following recommendations with reference to copyright:

Copyright.—The Royal Society is invited to exert its influence to obtain universal acceptance of the following principle:

'Science rests upon its published record, and ready access to public scientific and technical information is a fundamental need of scientists everywhere. All bars which prevent access to scientific and technical publications hinder the progress of science and should be removed.

'Making single copies of extracts from books or periodicals is essential to research workers, and the production of such single extract copies, by or on behalf of scientists, is necessary for scientific practice.'

The Conference believes that in some countries copyright restrictions are preventing the free flow of scientific information to research workers and that some action is necessary to remove this obstacle. The Royal Society is invited to initiate such action in the United Kingdom.

The Conference recommended the constitution of a standing committee on abstracting to consider, among other things:

- a. Increased coordination of abstracting agencies with the view of obtaining uniformity of bibliographical citation.
- b. Preparation, publication, and maintenance of a list of journals publishing abstracts.
 - c. Coordination of indexing in journals publishing abstracts.
 - d. Maintaining a panel of abstractors with special linguistic knowledge.
 - e. Whether or not existing abstracting services are adequate.

It was recommended that abstracting organizations interchange information and those of Great Britain co-ordinate their efforts as a preliminary to general international collaboration. One important recommendation was that abstracting organizations and professional societies issue a publication giving the author and title of accepted papers in order that knowledge of such papers be disseminated as promptly as possible.

The Conference recommended more detailed abstracts of articles which are published in foreign languages; also that abbreviations in the World List of Scientific Periodicals be followed. It further recommended subject indexes for volumes of abstracts, and consolidated subject indexes issued at ten-year periods. It urgently recommended that every effort be made to publish abstracts as early as possible. The Conference debated for some time on the suitability of author-abstracts and then, although recognizing their limitations, recommended their use to reduce costs and increase speed of publication.

The importance of the review and annual report was recognized by the Conference and several recommendations were passed encouraging their publication and improvement. With reference to library service, the Conference recommended increased support for central scientific libraries in the United Kingdom and increased efforts in the procurement of rare foreign periodicals; also increased co-operation among librarians and a study of the American Documentation Institute to determine whether or not a similar service was desirable in Britain, were urged.

Of particular importance to librarians was a recommendation that librarians should "be regarded as equal in standing to fellow scientists employed in research, industry, and administration, and should receive comparable treatment in training facilities, rank, and emoluments." It was recommended that students, both undergraduates and post graduates, be given more training in the use of library facilities.

There was considerable debate between proponents of the Universal Decimal Classification and proponents of alphabetical indexing. The Conference recommended the constitution of a standing committee on subject classification in science, including alphabetical arrangement. The use of mechanical selecting devices was considered and the desirability of full-scale experiments in their use was suggested. It was recommended that publishers issue catalog cards with or in advance of their books. The Conference recognized the value of directories to information services and research organizations and recommended:

- a. The publication of a new edition of the Aslib Directory.
- b. Publication of a directory of specialized research.
- c. Publication of a directory of industrial research.
- d. Publication of an index of scientists.

The Conference recommended the publication of a new edition of the World List. Other recommendations dealt with the need for translations and translating organizations and co-operation among such organizations to decrease duplication of effort. Further study in methods of duplication and reproduction was recommended, although the advantages of letterpress were reiterated by the Conference.

What action the Royal Society will take on these recommendations is not known nor is it clear just what constructive action will result in any case. It is important that a Conference sponsored by the Royal Society has recognized the problems in the prompt publication and dissemination of scientific papers and in the bibliographical control of such publications and the urgent necessity of finding solutions to these problems. It is important that so much emphasis was placed on the need for actual research into the problems discussed at the Conference with the view of bringing to light factual data concerning the use of scientific publications. It is further important that recognition was given to the need for highly trained and qualified librarians in the field of scientific literature.